

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please cancel claims 3, 5, 6, 13 and 14 without prejudice.

Please amend claims 1 and 4 as follows:

1. (currently amended) An integrated circuit, comprising:

~~a functional circuit coupled to~~ a plurality of terminals including first, second and third terminals of the power supply control integrated circuit, wherein the first terminal is adapted to withstand a first maximum voltage relative to the second terminal, wherein the third terminal is adapted to withstand a second maximum voltage relative to the second terminal, wherein the second maximum voltage is substantially greater than the first maximum voltage;

a power switch coupled between the third terminal and the second terminal, the power switch to switch high voltage at the third terminal in normal operation of the integrated circuit to control a power supply;

a high voltage buffer circuit coupled to the third terminal;

a voltage regulator circuit coupled to the high voltage buffer circuit;

a functional circuit coupled to the voltage regulator circuit, to the first terminal and to the power switch;

a detector circuit coupled to the high voltage buffer circuit to detect a voltage at the third terminal, the detector circuit having a first state when the voltage at the third terminal is

less than a first threshold, the detector having a second state when the voltage on the third terminal is greater than a second threshold; and

a selector circuit coupled to the detector circuit and the functional circuit, the selector circuit to select one of at least two distinct modes of operation for the functional circuit in response to a voltage at the plurality of third terminal[[s]].

2. (original) The integrated circuit of claim 1 wherein the selector circuit is adapted to hold the second state of the detector circuit after the detector circuit reverts to the first state.

Claim 3 (canceled)

4. (currently amended) The integrated circuit of claim 1 wherein the first terminal is an internal terminal~~not coupled to any circuitry external to the integrated circuit.~~

Claim 5 (canceled)

Claim 6 (canceled)

7. (original) The integrated circuit of claim 1 wherein the first terminal is one of a power supply terminal, a control terminal, and a functional terminal for the integrated circuit.

8. (original) The integrated circuit of claim 1 wherein the at least two distinct modes of operation for the functional circuit includes a normal mode of operation and an alternative mode of operation.

9. (original) The integrated circuit of claim 8 wherein the alternative mode of operation is a test mode that is different from the normal mode of operation.

10. (original) The integrated circuit of claim 8 wherein the alternative mode of operation is a trimming mode that is different from the normal mode of operation.

11. (original) The integrated circuit of claim 8 wherein the alternative mode of operation is also a normal mode of operation.

12. (original) The integrated circuit of claim 1 wherein the first and second thresholds depend on the voltage applied to the first terminal.

Claim 13 (canceled)

Claim 14 (canceled)

Please add new claims 15-17 as follows:

15. (new) The integrated circuit of claim 1 wherein the third terminal is one of a power supply terminal and a functional terminal for the integrated circuit.

16. (new) A method of setting a mode of operation of a power supply control integrated circuit, comprising:

switching a power switch of a power supply control integrated circuit coupled between a high voltage terminal and a reference terminal during a normal mode of operation of the power supply control integrated circuit; and

setting an alternative mode of operation of the power supply control integrated circuit in response to an application of a voltage to the high voltage terminal with a particular sequence and magnitude that cannot occur in an intended use of the power supply control integrated circuit.

17. (new) The method of setting the mode of operation of the power supply control integrated circuit of claim 16 further comprising resetting the power supply control integrated circuit from the alternative mode of operation into a normal mode of operation of the power supply control integrated circuit in response to an application of a high voltage to the high voltage terminal.